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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/647,948	08/26/2003	Harvey Jay	J07-004	4553

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EXAMINER
JOHNSON III, HENRY M

ART UNIT	PAPER NUMBER
3739	

R. Neil Sudol
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DATE MAILED: 10/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/647,948	JAY, HARVEY	
	Examiner	Art Unit	
	Henry M Johnson, III	3739	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 September 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-66* is/are pending in the application.

4a) Of the above claim(s) *41-57 and 61-66* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-29,37-40,58 and 59* is/are rejected.

7)☒ Claim(s) *30-36 and 60* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *8/26/2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *061404*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Applicant's election with traverse of Group I, Species 1 in the reply filed on 9/2/2004 is acknowledged. The traversal is on the ground(s) that subject matter is related and should properly be examined together. Regarding Species 2 and 5, the examiner agrees and the claims are examined herein. Regarding Species 3, 4, 6 and 7, this is not found persuasive because the claims contain unique method steps not related to Species 1.

Claims 1-40 and 58-60 are pending.

The requirement, as modified, is deemed proper and is therefore made FINAL.

Claim Objections

Claims 20 and 21 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. The removal of hair is not related to the treatment of damage to skin due to exposure to X-ray or UV radiation.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-28 and 37 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "the individual" in line 5. There is insufficient antecedent basis for this limitation in the claim.

Claim 37 is rejected as being in conflict with the claim from which it depends. One pulse conflicts with greater than one pulse.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-5, 9, 16, 17, 20, 21 and 29 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 6,514,243 to Eckhouse et al (Eckhouse). Eckhouse teaches methods for electromagnetic skin treatment using pulsed light sources such as flashlamps for providing electromagnetic treatment of the skin (abstract). The flashlamp is disclosed as providing energy with a wavelength between 550 and 1300 nm (Col. 6, lines 37-38), a pulse width of less than 200 ms, and the delay between pulses is on the order of 10 to 100 ms between the pulses (Col. 6, lines 39-41). The fluence is disclosed as between 10 and 100 J/cm^2 (Col. 6, line 22). The parameters of the incoherent light overlap those of the application and are therefore interpreted as an effective amount of electromagnetic radiation. The method of treatment with light energy comprises the steps of providing a high power, pulsed light output from a non-laser, incoherent light source and directing the pulsed light output to a treatment area (Col 4. line 64 to Col. 5 line 1). Since the application may be before, during or after exposure, there are no other options, so Eckhouse must be performed at one of those optional times. The presence or absence of visible damage does not affect the method of application. It is interpreted as a determinate as to whether treatment will or will not be performed only.

Regarding claims 2, 3 and 29, Eckhouse teaches that during operation light is typically applied to the skin in a sequence of three pulses with short delays between the pulses (Col. 16, lines 51-53) indicating a predetermined number of pulses and more than one pulse.

Regarding claims 16 and 17, Eckhouse teaches the wavelengths selected as being absorbed by melanin (Col. 21, lines 45-50).

Regarding claims 20 and 21, Eckhouse discloses the light pulses for removal of hair (col. 6, lines 13-15) and that each step of the method may be repeated using at least two different angular divergences, whereby at least two depths of penetration are obtained (Col. 6, lines 29-33). The two divergent angles are broadly interpreted as being at zero and 90 degrees.

Claims 1, and 25-28 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent 6,676,655 to McDaniel. McDaniel teaches a method for treating various dermatological conditions using electromagnetic radiation with wavelengths from about 300 nm to about 1600 nm, and wherein said pulses have a duration of from about 0.1 femtoseconds to about 100 seconds, the interpulse delay between said pulses is from about 0.1 to about 1000 milliseconds, and the energy fluence received by said tissue is less than about 10 J/cm^2 (Col. 2, lines 28-34). These parameters overlap those of the application and are therefore interpreted as an effective amount of electromagnetic radiation. The method of treatment comprises the step exposing tissue to the light of the stated parameters (Col. 2, lines 25-27). Since the application may be before, during or after exposure, there are no other options, so McDaniel must be performed at one of those optional times. The presence or absence of visible damage does not affect the method of application. It is interpreted as a determinate as to whether treatment will or will not be performed only.

Regarding claims 25 and 26, McDaniel teaches the use of porphyrin as an excellent topical composition with superior optical properties for acting as a chromophore to enhance low-intensity light therapies (Col 22, line 33-37).

Regarding claim 27, McDaniel teaches that ultrasound may be used therapeutically to interact directly with the agent or the agent-tissue complex to produce the desired damaged target tissues (to be used alone or in combination with laser or non-laser light sources)(Col. 6, line 66 to Col. 7 line 3).

Regarding claim 28, McDaniel discloses low energy electromagnetic fields can be used alone or in combination with photomodulation (Col. 15, lines 55-60).

Regarding claim 29, it is implicit that a subject would be exposed to UV unless kept in a darkened space because normal sunlight as well as fluorescent lights emit UV radiation.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 6, 7, 8 and 40 rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,514,243 to Eckhouse et al (Eckhouse). Eckhouse discloses a method for treating skin but does not disclose expressly the bursts of pulses or one or two pulses. The applicant cites a plethora of possible treatment regiments and operational parameters. At the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to determine operational parameters for the treatment based on the desired total fluence because Applicant has not disclosed that a specific pulse duration, interval or sequence configuration provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with any number of pulse arrangements that provided the radiation required for treatment because treatment appears to be dependent on the dosage. Therefore, it

would have been an obvious matter of design choice to modify the array configuration of Eckhouse to obtain the invention as specified in claims 6-8 and 40.

Claim 10 rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,514,243 to Eckhouse et al (Eckhouse) in view of U.S. Patent Application Publication US 2003/0216795 to Harth et al (Harth). Eckhouse is discussed above, but does not disclose multiple treatments. Harth teaches an apparatus for treating skin disorders using pulsed light of a wavelength of between 400-450 nm wherein the treatments are repeated in time intervals of several hours to several days (paragraph 0066). The Harth treatments are obviously performed in conjunction with exposure to UV radiation since exposure to such radiation is difficult to avoid (sunlight, fluorescent light, etc). It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the treatment intervals as taught by Harth in the method of Eckhouse as both are treating skin disorders with pulsed light with multiple operational parameters.

Claims 22, 23, 38, 39, 58 and 59 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,514,243 to Eckhouse et al (Eckhouse) in view of U.S. Patent 6,730,113 to Eckhardt et al. (Eckhardt). Eckhouse is discussed above, but does not teach the use of a detecting film. Eckhardt discloses the use of a color-changing material, such as a photochromic or fluorescent ink or dye as a film on bandage to detect radiation level. The color-changing material may change color or emit light when exposed to UV light. Alternatively, the color-changing material may change color or emit light when exposed to light from another portion of the spectrum (Col 12, lines 50-60). It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the color-changing film to detect radiation of Eckhardt in the invention of Eckhouse to monitor the radiation level to insure proper levels of radiation.

Allowable Subject Matter

Claims 30-36 and 60 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 11-15, 18, 19 and 24 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Henry M Johnson, III whose telephone number is (703) 305-0910. The examiner can normally be reached on Monday through Friday from 6:00 AM to 3:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Linda C Dvorak can be reached on (703) 308-0994. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Henry M. Johnson, III
Patent Examiner
Art Unit 3739